

ARBORICULTURAL ASSESSMENT REPORT

For:	Client:	Cunningham Lindsey (Maidstone)
	Insurer:	
Site:	Policyholder:	
	Risk Address:	32 South Villas, London, NW1 9BT
Refs:	OCA Ref:	69876
	Client Ref:	6353138
	Insurer Ref:	6353138

Arborist Name:	Sorrel Kiamil	Date:	11/05/2017
QC:	William Argent	Date:	26/05/2017



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1.0 INTRODUCTION & BRIEF

- 1.1** OCA has been instructed by Cunningham Lindsey (Maidstone) on behalf of the building insurers of 32 South Villas, London, NW1 9BT. We have been advised that the insured property has suffered differential movement and damage that is considered to have been caused by trees growing adjacent to the property influencing soils beneath its foundations.
- 1.2** We have been instructed to undertake a survey of the vegetation growing adjacent to the insured property in order to provide our opinion as to whether, based on the available information, any of this vegetation is likely to be influencing soil moisture levels beneath the foundations of the property, and if so, to provide recommendations as to what tree management could be implemented to effectively prevent damage continuing.
- 1.3** The vegetation growing adjacent to the risk address has been surveyed from the ground. All distances are measured to the nearest point of the risk address unless otherwise stated.

2.0 LIMITATIONS

- 2.1** Recommendations with respect to tree management are associated with the risk address as stated on the front cover of this report and following consultation with investigating engineers. The survey of trees and any other vegetation is associated with impacts on the risk address subject of this report. Matters of tree health, structural condition, and/or the safety of vegetation under third party control are specifically excluded. Third party land owners are strongly advised to seek their own professional advice as it relates to the health and stability of trees under their control.
- 2.2** Recommendations do not take account of any necessary permission (statutory or otherwise) that must be obtained before proceeding with any tree works.
- 2.3** Recommendations do not take account of any requirements for survey or mitigation relating to European or other protected species, e.g. bird nesting or bats. Land owners must obtain their own professional advice in respect of any protected species.

3.0 DISCUSSION AND ANALYSIS

3.1 Soils, soil water and vegetation

All vegetation requires water to live, and this water is substantially accessed from the soil within which the plants' roots grow.

If the soil is classified as a clay soil, then it will hold very much more water than sands, gravels and loam soils. As plants abstract water from the clay soil, the soil volume will "shrink" and "swell" during the summer as water is first removed and then added by summer rainfall.

In years in which rainfall during the summer is less than the total amount of water taken from the soil by plants, shrinkage will occur. This shrinkage may remove support from building foundations, leading to cracking in the fabric of the building.

3.2 Vegetation management

The control of trees, shrubs, and climbers, by removal or pruning as appropriate, are proven techniques that can control total soil water loss thereby minimising soil shrinkage and allowing repairs to proceed.

If vegetation management works are carried out promptly, then repairs can usually proceed very quickly and the duration and distress associated with the disruption that tree related subsidence brings can be minimised.

3.3 Third party liaison and statutory controls

Tree roots do not respect physical or property boundaries and can travel for many metres beyond the above ground "dripline" of the canopy of the vegetation.

The purpose of this report is to ascertain which vegetation is the most likely substantial and/or effective contributory cause of the damage witnessed to allow for liaison with third parties or with local administrative Councils as necessary.

You can learn more about tree related subsidence of low rise buildings by visiting:

www.oca-arb.co.uk/whatissubsidence.htm

4.0 EVIDENTIAL REVIEW AND MATERIAL CONSIDERATIONS

4.1 Engineering Summary

Engineering Appraisal Report: 30th April 2017.

The engineer has described the damage to the property, its location and the likely mechanism of movement, and has concluded that the building failure is related to differential subsidence damage caused as a result of the action of vegetation.

This is a new subsidence claim and we are unaware of any previous history of subsidence at the property.

The engineer has not commented on heave risk.

Monitoring has been instructed.

Drains have been investigated.

4.2 Foundations, geotechnical, and root identification

Report dated 13th March 2017.

A factual geotechnical report has described the below ground foundation design, soil and geotechnical conditions, as well as any root identification where available.

Foundations are described as being 1450mm (TP/BH1) & 705mm (TP/BH2) below ground level.

Trial pit/borehole samples have been subject to laboratory analysis and the results of these tests indicate that soils have a plasticity index ranging from 49% to 54% (TP/BH1) & 49%-51% in TP/BH2

Roots have been recovered from the trial pits and subjected to laboratory analysis and the results confirm:

TP1: USF	1mm	Pomoideae spp. (Apple/Hawthorn/Cotoneaster) 4 roots
	1mm	Prunus spp. (Cherry/Plum)
BH1:2500mm	1mm	Pomoideae spp. (Apple/Hawthorn/Cotoneaster) 4 roots
	1mm	Prunus spp. (Cherry/Plum)
TP2: USF	1mm	Fraxinus spp. (Ash)
BH2:2000mm	1mm	Broadleaved species (too juvenile for positive identification) 3 roots

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Recommendations

On the basis of our findings, we have considered a practical vegetation management specification.

This specification will assist in reducing the impact of the adjacent vegetation on soil moisture levels, thereby potentially stabilising foundations of the affected area of the building.

Where felling has been proposed, this will be on the basis that the vegetation in question would not respond well to a severe reduction in leaf area that would inevitably lead to decay, the development of potential hazards, and an annual or other on-going management commitment and cost.

If pruning is recommended, the specification will be designed to allow continual ease of re-pruning with a reasonable prospect of a reduction in soil water use.

5.2 Recommended vegetation management to address the current subsidence:

Tree No:	Species	Works Required
T1	Ash	Fell and treat stump
T6	Whitebeam	Fell and treat stump
T9	Cherry	Fell and treat stump

6.0 STATUTORY CONTROLS

London Borough of Camden has confirmed that none of the implicated vegetation is subject to a Tree Preservation Order but is within the Camden Square Conservation Area.

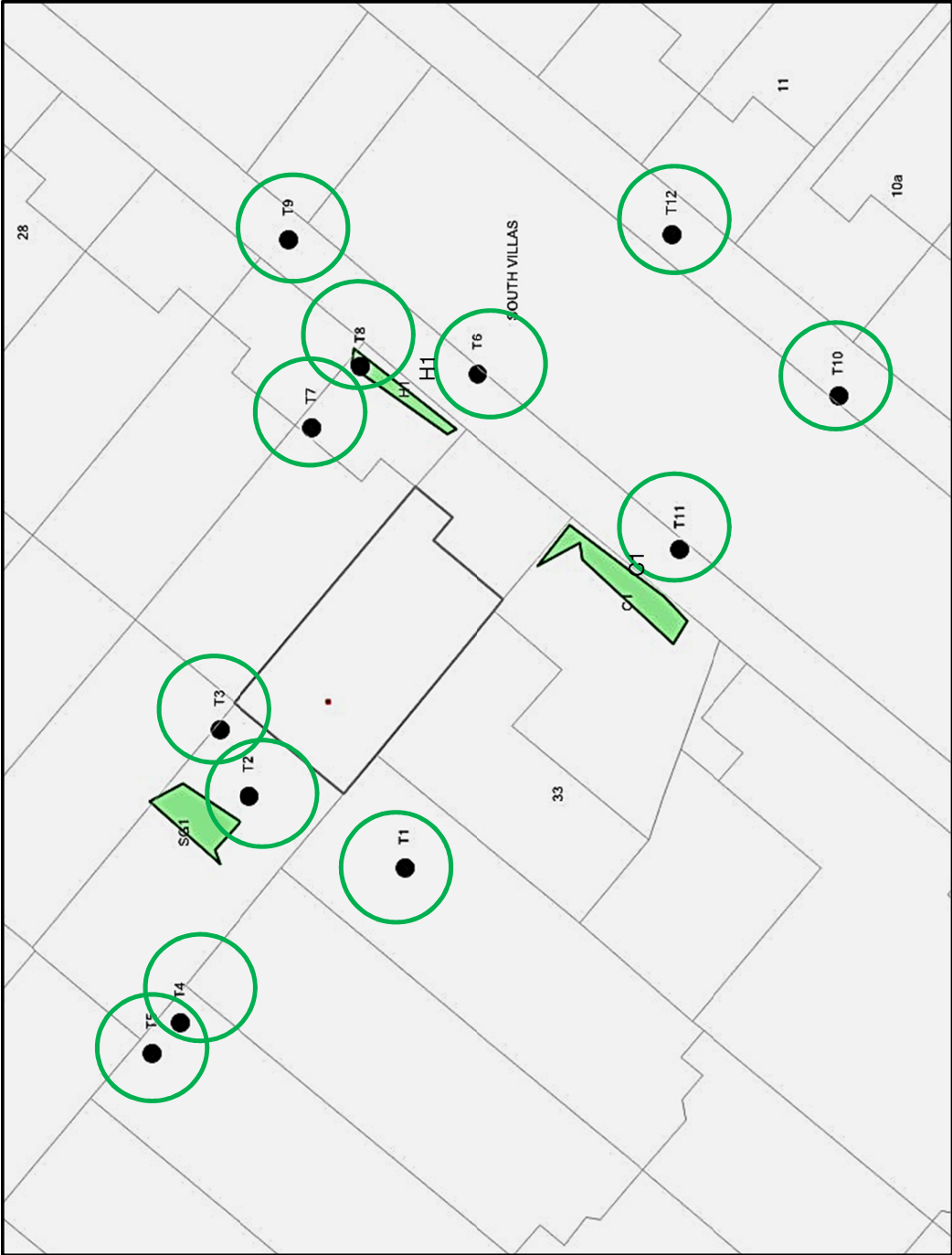
7.0 APPENDIX 1: TREE TABLES

Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg. (m)	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
T1	Ash	Mature	Fair	14.2	10	900	6	Subject to past management. Has cavities suitable for birds and bats, so additional surveys before felling will be required.	Fell and treat stump	Access through building. Parking restrictions	None	6 Camden Terrace, London, NW1 9BP.	P3P
T2	Bay	Early Mature	Fair	3.6	3.0	70	3	Subject to past management.	No work required	N/A	N/A	32 South Villas, London, NW1 9BT.	PH
T3	Prunus	Mature	Fair	4.6	5.0	170	4.2	Subject to past management. Leaning on wall. Ivy clad stem	No work required	N/A	N/A	32 South Villas, London, NW1 9BT.	PH
SG1	Bay and laurel	Early Mature	Fair	3	2	70	7.5	Subject to past management.	No work required	N/A	N/A	32 South Villas, London, NW1 9BT.	PH

Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg. (m)	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
T4	Maple	Mature	Fair	13.5	12	700	20	No significant recent management. Estimated no access and restricted view	No work required	N/A	N/A	Camden Terrace, London, NW1 9BP.	U3P
T5	Maple	Mature	Fair	13	11.50	700	24.0	No significant recent management. Estimated no access and restricted view	No work required	N/A	N/A	Camden Terrace, London, NW1 9BP.	U3P
T6	Whitebeam	Mature	Fair	9.2	9.0	290	6.3	Subject to past management.	Fell and treat stump	Pre cone/signage/ barriers action required - footpaths/public access. Parking restrictions.	None	London Borough of Camden	LA
T7	Cherry	Semi-Mature	Fair	4.2	3.0	80	6	No significant recent management. estimated no access	No work required	N/A		31 South Villas, London, NW1 9BT.	P3P
T8	Hornbeam	Semi-Mature	Fair	4.3	2	60	6	No significant recent management. estimates no access	No work required	N/A		31 South Villas, London, NW1 9BT.	P3P
H1	Box	Semi-Mature	Fair	0.4	1.0	30	3	Subject to recent management. Managed Hedge.	No work required	N/A		31 South Villas, London, NW1 9BT.	P3P
C1	Ivy	Semi-Mature	Fair	2	1.0	50	4.2	No significant recent management. ivy on wall	No work required	N/A		33 South Villas, London, NW1 9BT.	P3P
T9	Cherry	Mature	Fair	10.1	12	500	15	Subject to past management.	Fell and treat stump		None	London Borough of Camden	LA

Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg. (m)	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
T10	Cherry	Mature	Fair	7	5.0	340	16	Subject to recent management.	No work required	N/A		London Borough of Camden	LA
T11	Laurel	Semi-Mature	Fair	4.1	4	95	8.1	No significant past management.	No work required	N/A	None	London Borough of Camden	LA
T12	Whitebeam	Mature	Fair	7	4	360	15	Subject to recent management. Recently topped.	No work required	N/A	None	London Borough of Camden	LA

8.0 APPENDIX 2: SITE PLAN



Location:	32 South Villas, London, NW1 9BT
Job Ref:	69876
Survey Date:	09/05/2017 - Not to Scale
By OCA Limited	
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9.0 APPENDIX 3: SITE PHOTOGRAPHS

	
<p>T1 - Ash</p>	<p>T1 - Ash</p>
	
<p>T9 – Cherry</p>	<p>T6- Whitebeam</p>



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